



Late Purushottam Hari (Ganesh) Patil Shikshan Sanstha's
MAULI GROUP OF INSTITUTION'S COLLEGE OF ENGINEERING AND TECHNOLOGY, SHEGAON

Department of Electronics and Telecommunications

Value Added Courses

EXTC01: COMPONENT IDENTIFICATION & TESTING

INTRODUCTION:

Electronics components are the major part of the electronics system design and are rapidly undergoing technology advancements both, in performances and sizes. Choosing the right component is the most important task involved in the product development cycle. Being electronics engineer, everyone need to have in depth knowledge and experience in the fundamental understanding of components, their specifications, constructions, and functionalities. We have introduced this course to impart detailed knowledge of components and test the various components in the circuits.

COURSE OUTCOMES

At the end of the course the students will be able to

1. Recognize and understand operation of basic electronic components
2. Effectively apply the principles of analog meters, digital meters and oscilloscopes for testing and measurements
3. Confidently carry out simple repair procedures for the correction of faults on printed circuit boards

For details and registration to the course, please contact to Prof. R. R. Ambalkar (email:ambalkar.rahul@gmail.com)

EXTC02: PCB & CIRCUIT DESIGN

INTRODUCTION:

Printed circuit boards (PCB) are one of the most important parts of electronic devices. During this practical course students will have hands on practices on different devices and machines of the PCB-lab. They can produce and test the functions of their manufactured boards. We have introduced this course to impart basic knowledge of different steps to be carried out for PCB designs and provide hands on experience in PCB Software's.

COURSE OUTCOMES:

At the end of the course the students will be able

1. To draw schematic and simulate the circuit.
2. To analyze the fabrication processes of printed circuit boards.
3. To design PCBs for their projects.

For details and registration to the course, please contact to Prof. R. R. Ambalkar email:ambalkar.rahul@gmail.com)

EXTC03: INTRODUCTION TO SIMULATION SOFTWARES

INTRODUCTION:

Simulation is a fundamental capability for understanding, analyzing, and designing an extremely wide range of electronic circuits. By learning Circuit Simulation software, students can analyze their circuits and thereby can make the learning easy & more effective. We have introduced this course to develop knowledge and understanding about how simulation software is used for analyzing the analog and digital circuits and to acquaint students with the Installation Process & steps for creating Circuits.

COURSE OUTCOMES

At the end of the course the student will be able:

1. To design and conduct simulation and experiments.
2. To familiarize the students by introducing modern engineering tools necessary for engineering practices.

For details and registration to the course, please contact to Prof. N. W. Labade (email:nishantlabade@gmail.com)

EXTC04: EMBEDDED SYSTEM & IoT

INTRODUCTION:

Internet of Things is a new revolution of the Internet. The explosive growth of the “Internet of Things” is changing our world and the rapid drop in price for typical IoT components is allowing people to innovate new designs and products at home. At the simplest level, IoT is a combination of Embedded Technology (ET), Network Technology (NT) and Information Technology (IT). We have introduced this course to impart in-depth knowledge to our students on design, construction and programming concepts involved in building an IoT device.

COURSE OUTCOMES

At the end of the course the student will be able:

1. To understand the concept of The Internet of Things (IOT) and components.
2. To interface Arduino and Raspberry Pi controller with various sensors, and display device.
3. To designing of some IOT based prototypes.

For details and registration to the course, please contact to Prof. N. B. Bhawarkar (email:nb.bhawarkar@gmail.com)

EXTC05: IC TESTING AND CIRCUIT SIMULATION

INTRODUCTION:

Design verification has been the biggest challenge for any IC design. EDA tools and verification methods have evolved in last few years, but along with that the size and complexity of chips has also increased. Testing is the process of detecting errors and debugging is the art of determining the exact nature and location of suspected errors and removing them. We have introduced this course to introduce our students with different processes of ASIC design, followed by its testing and debugging.

COURSE OUTCOMES

At the end of the course the student will be able:

1. To gain an in-depth understanding of theories related to digital IC design.
2. To understand steps and procedure of circuit design.
3. To implement IC for industrial and engineering applications.

For details and registration to the course, please contact to Prof. K.U. Pathak (email:kaustubhpathak5@gmail.com)